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DE 29709099 U1 **RD 391028 A**

(58) Field of Search
On-Line - WPI

(54) Abstract Title
Disabling electronic equipment in hazardous areas

(57) Apparatus for controlling an electronic device 2, for an example a mobile telephone, as it approaches a controlled zone, for example an aircraft, is provided. The apparatus includes a controller 13 with an antenna 8 located at an access point to the zone. As the user 14 approaches, the device 2 is disabled until the user leaves the zone. Controlled zones may include petrol filling stations, public theatres and operating theatres. The invention is also applicable to disabling compact disc players and, with pagers, switching from auditory to vibratory alerts.

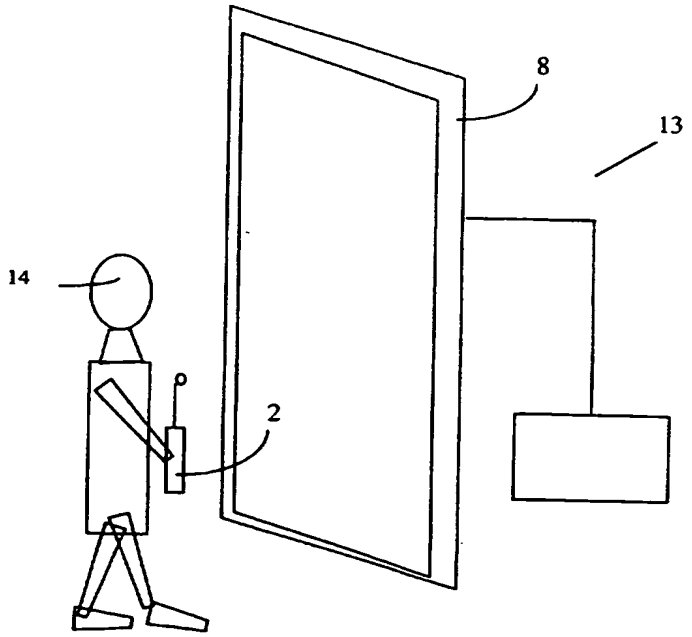

Fig 3

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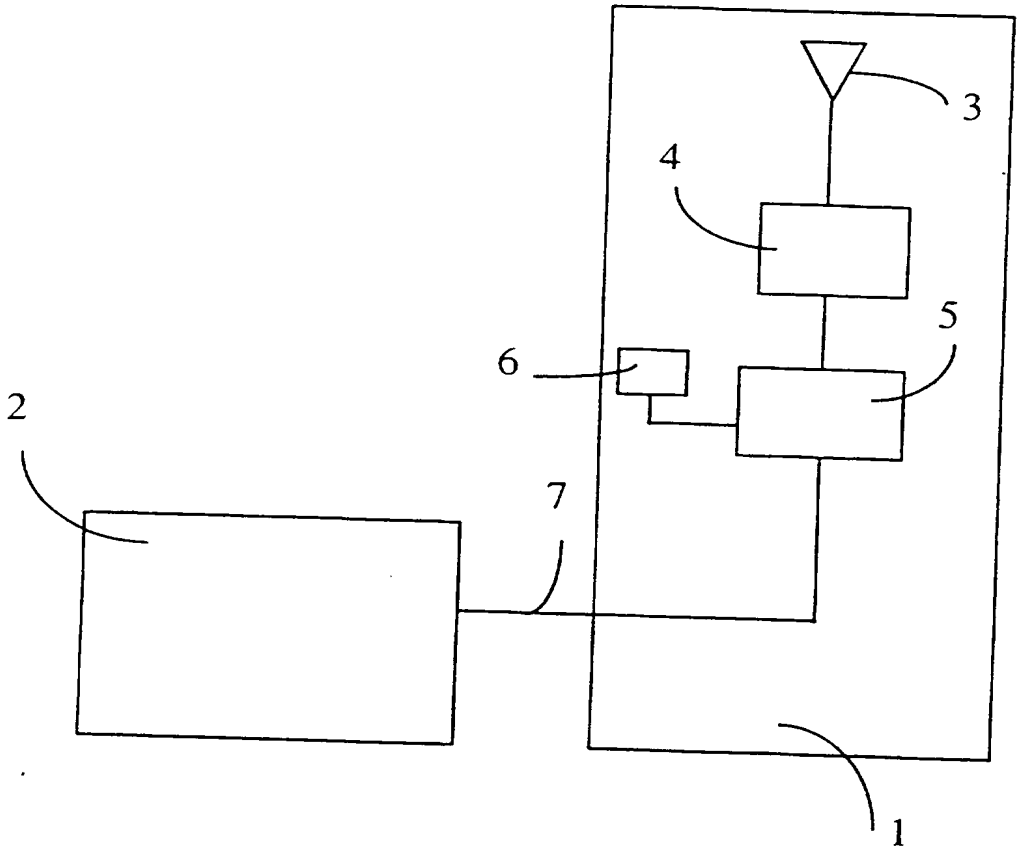

FIG. 1

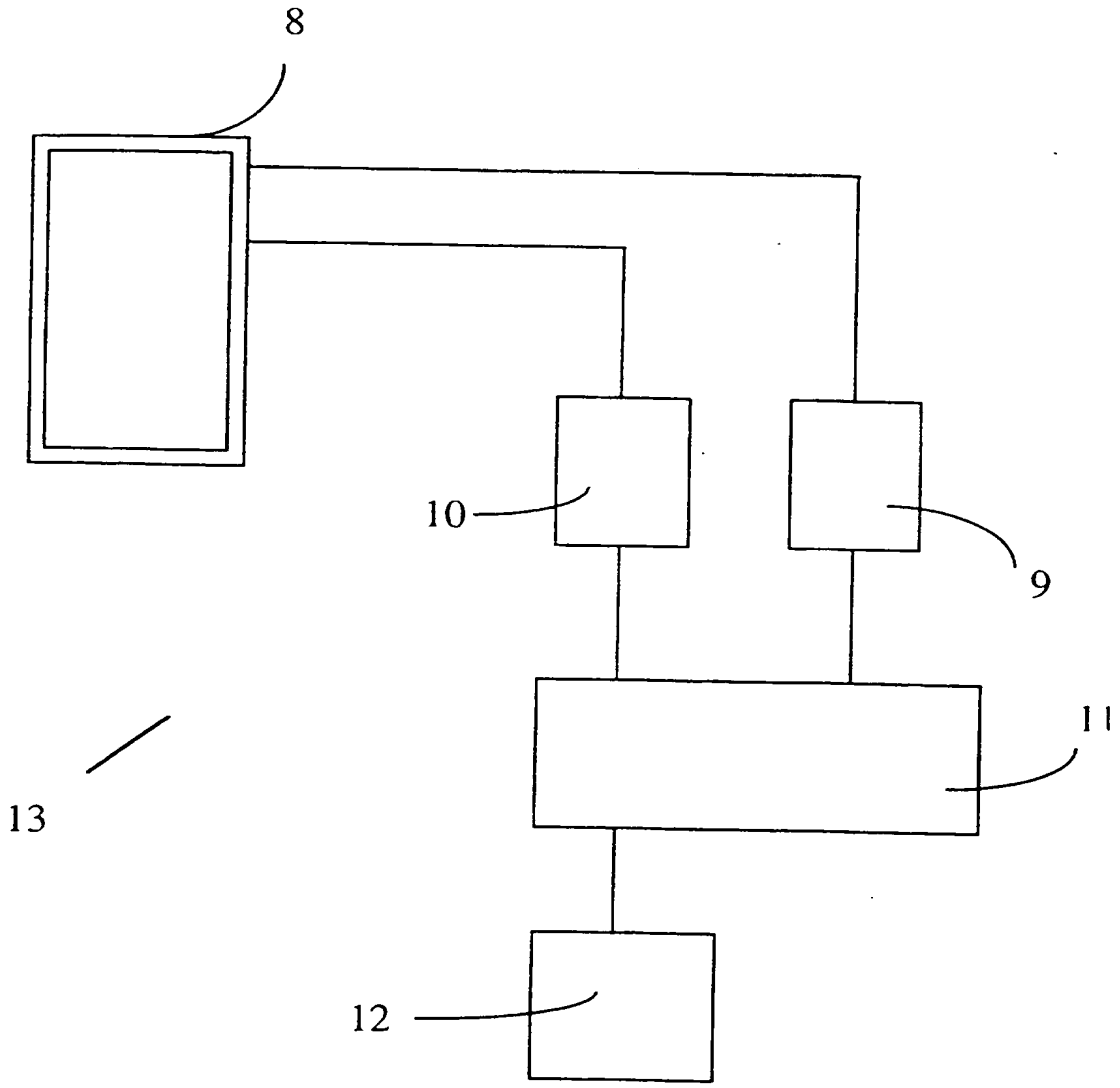

Fig.2

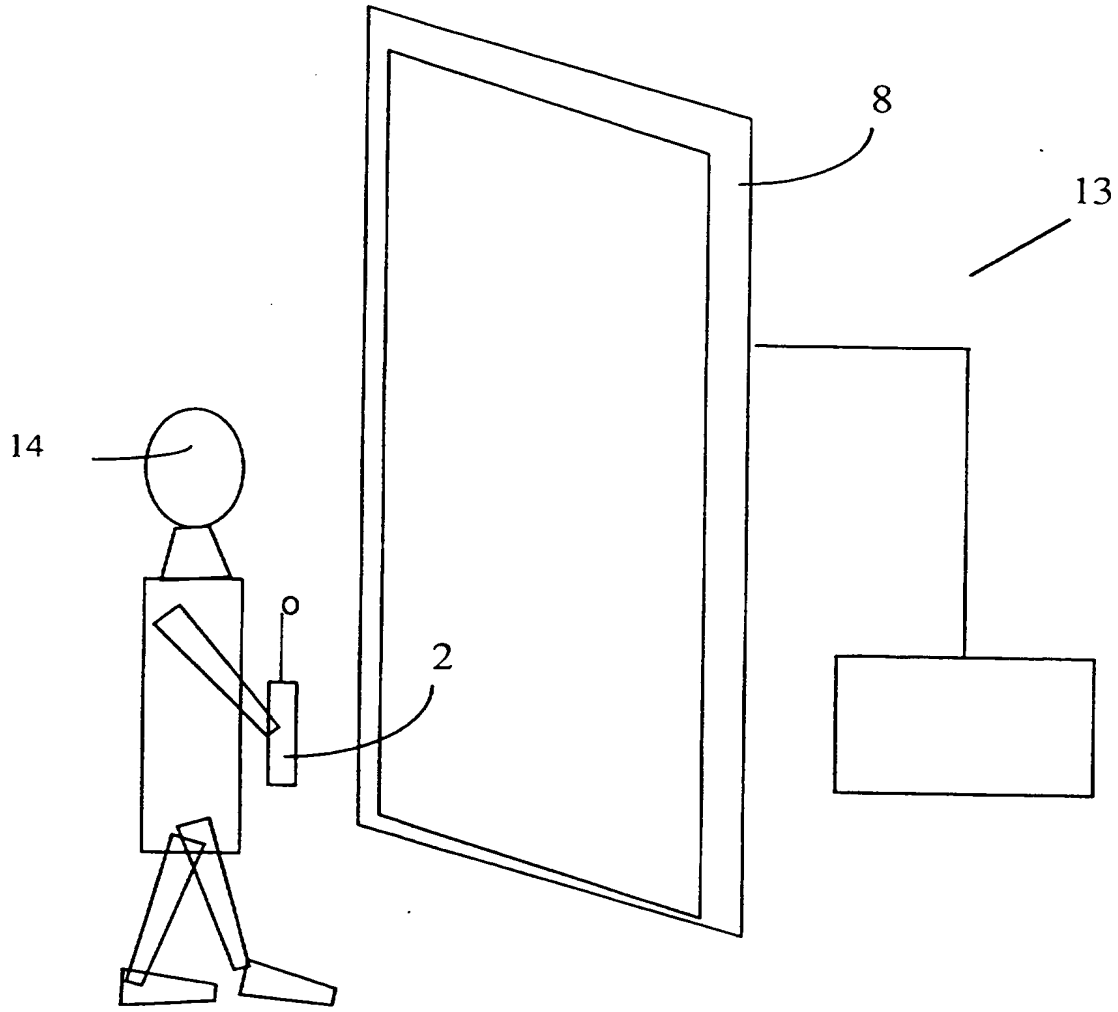

Fig 3

Apparatus For Controlling An Electronic Device

Field Of The Invention

This invention relates to apparatus for controlling an electronic device. It is particularly applicable to the control of mobile telephones, radio transmitters or pagers when they are located in a zone where their use would be hazardous or otherwise undesirable.

Background Of The Invention

Travellers by air are now familiar with the warnings not to use certain types of electronic equipment such as mobile telephones and compact disc players during flight because of potential problems of interference with the aircraft's flight systems.

There has been at least one aircraft crash which has been attributed to the use of a mobile telephone.

Similarly mobile telephones and other radio transmitters should be switched off on garage forecourts or other areas where the is a danger of explosion due to their use. A further example of such a hazardous area is a hospital operating theatre which will have an atmosphere including explosive anaesthetic gases.

As well as situations where the use of such equipment is undesirable there are other situations where their use will cause annoyance to others. An example is the public theatre where the use of such equipment is detrimental to the concentration of the performers and the audience alike and causes considerable annoyance and embarrassment to the well mannered user.

Summary Of The Invention

According to the invention there is provided apparatus for controlling an electronic device comprising a controller for providing a signal at an access to or in a controlled zone, a receiver for receiving the signal and responsive to the signal to provide a control signal to the electronic device.

Brief Description Of The Drawings

A specific embodiment of the invention will now be described, by way of example only, with reference to, and as illustrated by, the drawings in which:

Figure 1 shows in block diagram form part of an apparatus for controlling an electronic device together with the device to be controlled;

Figure 2 shows in block diagram form a controller from the apparatus; and

Figure 3 shows the apparatus in use.

Detailed Description Of A Preferred Embodiment

With reference to figure 1, a unit 1 which is part of the apparatus for controlling an electronic device 2 includes an antenna 3, a transceiver section 4, a microprocessor 5 and associated memory 6. The antenna 3 couples received signals to the transceiver 4 where they are detected and the resultant received detected signals are coupled to the microprocessor 5. The microprocessor 5 is coupled to the device 2 by a control output line 7. The transceiver section is also used to transmit data and messages passed to it by the microprocessor 5.

The device 2 is, in this case, a mobile telephone and is microprocessor controlled . The microprocessor (not shown) is connected to the output line 7.

A further part of the control system is shown in figure 2. It includes a doorway mounted walkthrough antenna 8 coupled via a receiver 9 and transmitter 10 to a microcomputer 11 having an associated memory 12. This part of the system is referred to as the controller 13.

Figure 3 shows the system in use. The controller 13 is located in the fuselage of a passenger aircraft with the antenna 8 located about an inner periphery of a doorway of the aircraft. As a passenger 14 approaches the doorway carrying the device 2, including the unit 1, the antenna 3 picks up and passes to the transceiver 4 signals transmitted by the controller 13. The signals include requests for electronic circuits to be disabled. These signals are detected by the transceiver 4 and the detected signals passed to the microprocessor 5. The microprocessor 5 sends an instruction to the device 2 to switch off all potentially EMI emitting circuitry (for the mobile telephone this will be achieved by disabling its transmitter) and also instructs the transceiver to send an acknowledge signal indicating compliance with the request.

Upon completion of the flight, the controller 13 transmits a circuitry enable request such that as the passenger leaves the aircraft the microprocessor in response to the new request passes an instruction to the device 2 to enable the previously disabled circuits.

The passenger 14 is then able to use the device 2 as desired.

In alternative embodiments of the invention the device may be only partially disabled. For example, where the device is a pager the pager may be instructed to provide a vibrator alert instead of an auditory alert. the alerts may be triggered as the disable is placed on the device and or when removed from the device. The alert may take the form of a message displayed such that the user can readily appreciate that the disable action has been applied. The reason for the application of the disable could also be displayed.

Users may be allocated to different groups and the apparatus configured to transmit a group identifier to the controller. Certain groups of user may then be permitted to use their device. An example of this could be the situation where flight attendants are to be permitted to use their handheld radios. Similarly police and emergency services might also be permitted to use their radios.